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INFORMATION ITEM

Year in Review

Summary: This is a year-end update on progress in implementing the Delta Plan and Delta Science Plan, including the status of 2017 staff priorities that were presented to the Council at its February 2017 meeting. The chief deputy executive officer, lead scientist, and deputy executive officers will discuss this progress and the Council activities supporting them and be available to answer questions from Council members.

Background

In February 2017, staff presented the Council with recommended priorities for the coming year, emphasizing activities to address the Delta Plan's 87 policies and recommendations, as well as key elements of the Delta Science Plan and legislative directives from the Delta Reform Act. Significant progress was made on all of the priorities (Attachment 1). Some staff activities, undertaken in 2017, warrant special mention:

Amending the Delta Plan

Delta Plan Amendments – The Council approved the California Environmental Quality Act (CEQA) project descriptions and began the CEQA review process for the amendments for performance measures, the Delta Levees Investment Strategy, and conveyance, storage systems, and operation of both.

When it was adopted in 2013, the Delta Plan contained preliminary performance measures developed to monitor implementation of Delta Plan policies and recommendations, and identified the need for the Council to continue to work with scientific, agency, and stakeholder experts to further refine the Delta Plan's performance measures. The Council subsequently conducted a rigorous public process and, in February 2016, amended the Delta Plan to include new and refined performance measures for a total of 122 administrative and 37 output/outcome performance measures that include metrics, baselines, and targets to address achieving the Delta Plan's goals and strategies. The proposed performance measure amendment, currently undergoing environmental review, further refines the output and outcome performance measures in light of the pending amendments regarding Delta levees and conveyance, storage systems, and the operation of both.

Staff worked with the Department of Water Resources, the Central Valley Flood Protection Board, and local experts to develop recommendations for State investments in Delta levees, including an update of the Delta Plan's levee investment priorities. This

proposed amendment, also undergoing environmental review, combines risk analysis, economics, engineering, and decision-making techniques to identify funding priorities.

In April 2015, the Brown Administration announced a new preferred alternative to the Bay Delta Conservation Plan that would not complete it as a Natural Community Conservation Plan (NCCP), but instead construct water conveyance facilities through an initiative called California WaterFix. This action triggered a provision in the Council's Delta Plan to reexamine its recommendations and policies to address the way water is transferred across the Delta. Since then, the Council has worked to develop an amendment to the Delta Plan to promote conveyance options and better integrate new storage opportunities and improved operations.

Ecosystem Amendment Development – Staff initiated a process to update Chapter 4 of the Delta Plan. Known as the ecosystem amendment, this effort will use best available science, including in relation to climate change and sea level rise, and more fully address ecosystem function. During 2017, staff implemented an inclusive, multi-party approach to develop adaptive management practices and identify landscape-scale ecological outcomes. An interagency team was formed to provide feedback on synthesis papers and amendment drafts ; and both staff and Council members held listening sessions to gather feedback for the amendment. Staff intends to provide the Council with a review draft in early 2018.

Implementing the Delta Plan

DeltaView and Dashboard – Staff initiated a new online dashboard to be deployed after any amendments to Delta Plan output and outcome performance measures are approved. The Dashboard will track and report on individual performance metrics, including baselines, targets and timelines to achieve the targets, and provide intuitive and user-friendly data analytics and graphing tools to improve understanding of the Delta Plan performance measures assessments.

Climate Vulnerability Program – The Council contracted with the Bay Conservation and Development Commission to extend its climate vulnerability program (Adjusting to Rising Tides) into the Delta. The purpose of this study is to raise awareness locally, regionally, and statewide regarding the impact of climate change on the Delta. The study will provide a regional perspective that will inform where limited State resources should be prioritized across the Delta, relative to mitigation and adaptation approaches to climate change.

Implementing the Delta Science Plan

New Delta Lead Scientist –This year the Council appointed Dr. John Callaway, an internationally recognized expert in wetland restoration, specifically wetland plant ecology and sediment dynamics, to succeed Dr. Cliff Dahm, who retired. The Lead Scientist provides overall direction for the Delta Science Program, and is recognized as a leader within the Delta science community.

The Council also appoints the members of the Delta Independent Science Board (Delta ISB), who are nationally prominent scientists with appropriate expertise to provide oversight of the scientific research, monitoring, and assessment programs that support adaptive management of the Delta. This year, the Council appointed Dr. Thomas Holzer, an emeritus scientist at the United States Geological Survey, to replace Dr. Brian Atwater, who retired.

Science Action Agenda – The Delta Science Program completed and released the 2017-2021 Science Action Agenda (SAA), a process started in 2016 that included outreach and coordination with the Delta Independent Science Board, Delta Agency Science Workgroup, all major science partners identified in the Delta Science Plan, and the Delta Plan Interagency Implementation Committee.

The SAA is a common agenda to bring together Delta science and includes 13 priority science actions, five action areas, and 12 additional actions. In the words of former Delta Lead Scientist, Cliff Dahm, "The Science Action Agenda for the Delta represents a road map that can help us come together around a common set of priorities no single organization has the capacity to achieve on its own."

The SAA is one element of a three-part Delta Science Strategy that includes the Delta Science Plan and The State of Bay-Delta Science (SBDS). The Delta Science Plan is the foundation that sets a shared vision for Delta science. SBDS, most recently updated in 2016, synthesizes scientific knowledge about the Delta and provides the SAA with information to begin identifying priority science actions to address key uncertainties and fill institutional gaps. The 2017 class of Delta Science Fellows shaped their research projects in alignment with the SAA (Delta Science Fellows projects: http://deltacouncil.ca.gov/science-program/delta-science-fellows-program).

Understanding the Role of Nutrients in Delta Water Quality – The Sacramento Regional County Sanitation District's (Regional San) wastewater treatment plant is undergoing $1.6 billion in upgrades. Expected to be completed in 2021, the upgrades will dramatically reduce total nitrogen levels, and alter the chemical form of nitrogen in the Sacramento River. To understand what effects these changes will have on the Delta ecosystem, the Delta Science Program is leading efforts to establish a baseline of chemical and biological conditions prior to treatment upgrades through a set of innovative pilot studies known as "Operation Baseline" in order to be able to assess the outcome of this significant investment in water quality improvements with anticipated ripple effects throughout the Delta ecosystem.

Lessons from the Drought – A synthesis report, *Lessons Learned from Key Management Responses and Associated Science Affecting the Delta,* is currently being finalized by researchers at the UC Davis Center for Watershed Science in coordination with the Council's Delta Science Program staff. This report, to be finalized by February 2018, will concisely synthesize major management actions taken during water years 2014 and 2015 that affected the Delta (chosen because these represent the most

severe years of drought). The lessons will enable water and ecosystem managers to better coordinate drought response and contingency plans in advance of the next extreme event, in close coordination with water suppliers, water users, and regulators. It also will examine how associated science was used in carrying out these actions, identify gaps in knowledge and provide recommendations for additional science, overcoming any institutional challenges, and other activities that will help improve future drought response.

13th Biennial State of the San Francisco Estuary Conference – Every two years, more than a thousand scientists, engineers, and resource managers meet in the Bay Area to discuss the latest information about the estuary's changing watersheds, impacts from major stressors, recovery programs for species and habitats, and emerging challenges. The biennial conference is supported by the Delta Stewardship Council, and has been staged by the San Francisco Estuary Partnership since the Comprehensive Conservation and Management Plan for the Estuary was signed in 1993, and is co-sponsored by the Council, US Environmental Protection Agency, Region 9, the Bay Area Clean Water Agencies, and the Coastal Conservancy.

Other Core Council Functions

Delta Plan Interagency Implementation Committee (DPIIC). The DPIIC, which met in May and November 2017 helps maintain accountability through coordinated actions and progress updates covering multiple programs, plans, and projects being carried out by the more than 225 State, federal and local agencies with some degree of jurisdiction in the Delta. During 2017, the DPIIC built on the success of 2016 Science Enterprise Workshop to coordinate efforts around integrated modeling, structured decision making, and simplified permitting for ecosystem restoration projects.

Covered Actions. During 2017, staff provided early consultations on 14 projects, including the Rio Vista Estuarine Research Station, the Yolo Habitat Conservation Plan, California WaterFix, and the Yolo Bypass Wildlife Area Habitat and Drainage Improvement Project. Three project certifications were received as well: Bacon Island, Decker Island, and the Yolo Bypass Corridors for Flood Escape on the Yolo Bypass Wildlife Area.

Synthesize and Communicate Delta Science. True to its charge in the Delta Reform Act to carry out the Delta Science Program's mission through "…synthesizing and communicating scientific information to policymakers and decision-makers [and] promoting independent scientific peer review…," during 2017 the Delta Science Program initiated a number of science communication activities. Five day-long symposia were coordinated, focusing on contaminants, science communication, invasive species, biotelemetry, and managed relocation. Eleven brown bag seminars were hosted on a multitude of science topics, with participants numbering from 73 to 138. Nine workshops were held, ranging in topics from primary production, integrated modeling, and structured decision-making. Four reviews were initiated and completed, focused on aquatic science, regional monitoring, the Yolo Bypass "notch" to improve

fish passage over the Fremont Weir and access the productive flood plain, and the Long-term Operations Biological Opinions. Science synthesis efforts included drought, the False River barrier, and mercury. Delta Science Program staff were either lead- or co-authors on four peer-reviewed publications relevant to informing Delta Plan policies and recommendations.

Other Activities

The Delta Reform Act set out a role for the Council that is primarily one of oversight and coordination. Thus, most of the projects that implement the Delta Plan and further the State's coequal goals are carried out by agencies other than the Council. The 2017 Annual Report (Attachment 1) is designed to highlight the accomplishments not only of the Council but also those of the related State, federal, and local agencies that together will help the State achieve the coequal goals for the Delta.

Today's Briefing

Chief Deputy Executive Officer Jessica Law, Lead Scientist Dr. John Callaway, Deputy Executive Officer for Science Rainer Hoenicke, and Program Manager Terri Gaines will discuss 2017 accomplishments.

List of Attachments

Attachment 1: Progress Report for 2017 Priorities
Attachment 2: 2017 Annual Report *(to be distributed at the meeting)*

Contact

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